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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,616	02/07/2002	Hisanobu Ishiyama	81751.0028	3217
26021	7590	08/06/2004	EXAMINER	
HOGAN & HARTSON L.L.P. 500 S. GRAND AVENUE SUITE 1900 LOS ANGELES, CA 90071-2611			NGUYEN, JIMMY H	
		ART UNIT		PAPER NUMBER
		2673		10
DATE MAILED: 08/06/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/072,616	ISHIYAMA, HISANOBU
	Examiner	Art Unit
	Jimmy H. Nguyen	2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
 THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 20 May 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-21 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8</u> | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is made in response to applicant's amendment filed on 05/20/04 (entered into the file wrapper as Paper No.9). Claims 1-21 are currently pending in the application. An action follows below:
2. It is noted Applicant that as best understood by the examiner, the display driver presently claimed in all pending claims 1-21 corresponds to the X driver IC (28/200) disclosed in the specification and drawings. Further see claim 7.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 2/9/04 and entered as paper No. 8 is considered by the examiner.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the feature, "the display driver comprising a line data register, a column data register and an image determination data generation circuit" as recited in claim 4, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes

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made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

5. Claim 4 is objected to under 37 CFR 1.75(a) because although this claim meets the requirement 112/2d, i.e., the metes and bounds are determinable, however, the feature, "an image determination data generation circuit", see line 8, should be changed to -- a data generation circuit --, so as to make the claimed invention consistent with the disclosure, specifically page 22, lines 19-27, i.e., a line data register and a column data register are parts of an image determination data generation circuit, rather than separate from an image determination data generation circuit as presently claimed.

It is in the best interest of the patent community that applicant, in his/her normal review and/or rewriting of the claims, to take into consideration these editorial situations and make changes as necessary.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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7. Claims 4, 10 and 17 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding to these claims, the disclosure, when filed, does not contain sufficient information regarding to the claimed feature, "The display driver further comprising a line data register; a column data register; and an image determination data generation circuit" as recited in lines 1-13 of claim 4. The disclosure, page 7, lines 10-21, only discloses as much as recited in claim 4. The disclosure, page 22, line 19 through page 24, line 3, specifically page 23, last two lines, **in contrast to** the invention of claim 4, discloses the image determination data generation circuit, as shown in fig. 8, is external to the X driver IC 28 (i.e., the claimed display driver), i.e., a line data register, a column data register and an image determination data generation circuit **are not part of the claimed display driver**. Furthermore, the original disclosure, specifically fig. 8 and the corresponding description, only discloses a sole image determination data generation circuit including a line data register (80), a column data register (82) and a data generation circuit (84), i.e., the original disclosure does not fairly teach the locations of the line data register; the column data register and the image determination data generation circuit, so as to enable one skilled in the pertinent art to make and use the claimed invention.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-3, 7-9, 13-16, 20 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Kudo et al. (JP408076721A, cited in IDS filed on 02/07/2002), hereinafter Kudo. See the attached English translation for the following rejections.

As per claims above, the claimed invention reads on Kudo as follows: Kudo discloses an electronic instrument and an associate driving method, the electronic instrument (as shown in fig. 1) comprising an image data supply circuit including a CPU (118) for supplying the still-image data (still picture data 116) (see page 5, paragraph 0014, line 14) and an animation controller (115) for supplying the moving-image data (video data 109) (see page 5, paragraph 0014, line 11), and a display unit (a liquid crystal display 121, see page 5, last line) comprising a panel (a display panel 101, page 5, paragraph 0014, line 1), a scan driver (108) (page 5, paragraph 0014, line 5) and a display driver (a data driver 102, page 5, paragraph 0014, line 2), which includes a RAM (a still picture display memory 104, page 6, paragraph 0017, lines 1-3), a line memory (a video data latch circuit 103, by virtue of the operation described at page 6, paragraph 0016, specifically lines 1-3, which discloses a video data latch circuit 103 **sequentially latching or storing the video data 109 for 1 scan electrode**), and a selector (a data selector 105, fig. 1) for selecting and outputting a moving-image data (a video data 109) when an image determination data (a selection signal or an animation display signal 114) is “1”, or a still-image data (a still-picture data 116) when the image determination data (114) is “0” (see fig. 1, page 6, paragraph

0017, lines 3-5). Further, as noting in figs. 6 and 7, Kudo teaches the image determination data (114) generated based on a column address and a line address. Further see paragraph 0021. The elements and steps in the claims are read in the reference.

10. Claims 1-3, 7-9, 13-16, 20 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Tamura (US 2002/0018058 A1).

As per claims above, the claimed invention reads on Tamura as follows: Tamura discloses an electronic instrument and an associate driving method, the electronic instrument (as shown in fig. 1) comprising an image data supply circuit (MPU 10) for supplying the still-image data and the moving-image data (fig. 1), and a display unit (20) (fig. 1) comprising a liquid crystal panel (22) (fig. 1), a scan driver (a Y-driver IC 26) (fig. 1) and a display driver (a X-driver IC 24 of fig. 1 or a X-driver IC 300 of fig. 12). See page 3, paragraph 0051. Further, as noting in fig. 12, and page 9, paragraph 0146, Tamura discloses that a display driver (300) (see fig. 12) including a RAM (a first display data RAM 310) for storing still-image data, a line memory (a second display data RAM 320) for storing moving-image data, and a selector (350) for selecting and outputting a moving-image data or a still-image data, according to an image determination data (an output of MPU-related control circuit 130, fig. 12, page 10, paragraph 0051), which is inherently generated based on a column address and a line address, which are generated on the basis of a start address SA and an address EA. Further, as noting in fig. 12 and the description, specifically paragraphs [0075] and [0151], Tamura teaches a RAM 320 (i.e., the claimed line memory) inherently storing moving-image data in scan line units, in order to allow the selector (350) selecting and outputting a moving-image data **one line at a time**, to the PWM

decoder circuit (180). Further see fig. 3, page 4, paragraph [0059]. The elements and steps in the claims are read in the reference.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 5, 6, 11, 12, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kudo, and further in view of Uya et al. (USPN: 5,530,797), hereinafter Uya.

As per claims above, as discussed in the rejection above, Kudo discloses the RAM (104) for storing the still-image data and the selector (105). Accordingly, Kudo discloses all the limitations of these claims except that the Kudo RAM (104) does not store the image determination data, as recited in these claims.

However, Uya discloses a conventional electronic equipment, as shown in fig. 8, comprising a video RAM unit (corresponding to the claimed RAM) including a video RAM (1) for storing still-picture image data and a video RAM (key plane memory 34) for storing the image determination data (key data, co. 2, lines 4-11). See col. 1, lines 40-54. Further, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to recognize that the benefit of using the memory for storing the image determination data is to reduce the burden for the CPU operating under time-sharing/multi-task operating system, and to increase the processing speed of displaying images. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to substitute a video

RAM unit of Uya for the Kudo RAM (104) because this would reduce the burden for the CPU and increase the processing speed of displaying images.

Response to Arguments

13. Applicant's arguments, see pages 8-9 of the amendment, filed on 05/20/2004, with respect to the rejection under 35 USC 112, first paragraph, have been fully considered but they are not persuasive because it is not sure that a line data register, a column data register and an image determination data generation circuit are parts of the display driver as presently claimed, or are not parts of the display driver as disclosed in the specification, page 22, line 19 through page 24, line 3, specifically page 23, last two lines.
14. Applicant's argument, see page 10 of the amendment, filed on 05/20/2004, with respect to the rejection under 35 USC 102(b) as being anticipated by Kudo et al. reference, has been fully considered but it is not persuasive because, as discussed in the detailed rejection above, Kudo expressly teaches a video data latch circuit 103 (corresponding to the claimed line memory) **sequentially** latching or storing the video data 109 **for 1 scan electrode** at a time (by virtue of the operation described at page 6, paragraph 0016, specifically lines 1-3).
15. Applicant's argument, see page 11 of the amendment, filed on 05/20/2004, with respect to the rejection under 35 USC 102(e) as being anticipated by Tamura reference, has been fully considered but it is not persuasive because, as discussed in the detailed rejection above, by virtue of the operation described at paragraphs [0075] and [0151] and as shown in fig. 12, Tamura teaches a RAM 320 (i.e., the claimed line memory) inherently storing moving-image data in scan line units, in order to allow the selector (350) selecting and outputting a moving-image data **one line at a time**, to the PWM decoder circuit (180).

For the above reasons, it is believed that the rejections should be sustained.

Conclusion

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is (703) 306-5422. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached at (703) 305-4938.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the Technology Center 2600 Customer Service Office whose telephone
number is (703) 306-0377.

JHN
August 4, 2004



Jimmy H. Nguyen
Examiner
Art Unit: 2673